

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (cancelled)

2. (withdrawn) A method of decreasing the production of an A β peptide by a cell comprising contacting the cell with the agent selected by the method of claim 1, thereby decreasing production of the A β peptide by the cell.

3. (previously presented) A method of selecting an agent that prevents cleavage of a substrate comprising APP, said method comprising the steps of

(a) contacting a candidate agent with a β -secretase species selected from the group consisting of cathepsin B and cathepsin L, wherein the contacting occurs in the presence of a substrate comprising APP and under conditions that allow for cleavage of the APP by said β -secretase species; and

(b) selecting the agent that prevents the cleavage of the APP by the β -secretase species.

4. (original) The method of claim 3, wherein the β -secretase species is cathepsin B.

5. (withdrawn) The method of claim 3, wherein the β -secretase species is cathepsin L.

6. (withdrawn) A method of decreasing the production of an A β peptide by a cell comprising contacting the cell with the agent selected by the method of claim 1 or 3, thereby decreasing production of the A β peptide by the cell.

7. (withdrawn) The method of claim 6, wherein said agent inhibits an activity of cathepsin B.

8. (withdrawn) The method of claim 6, wherein said agent inhibits an activity of cathepsin L.

9. (withdrawn) The method of claim 6, wherein said agent inhibits an activity of cathepsin B and cathepsin L.

10. (withdrawn) A method of decreasing production of an A β peptide by an individual affected with a condition that is associated with aggregation of the A β peptide into amyloid plaques comprising administering to the affected individual an effective amount of the agent selected by the method of claim 1 or 3, thereby decreasing production of the A β peptide by the affected individual.

11. (withdrawn) The method of claim 10, wherein decreasing production of the A β peptide by the individual results in a reduction in said aggregation of the A β peptide into amyloid plaques.

12. (withdrawn) The method of claim 11, wherein said condition is Alzheimer's Disease.

13. (withdrawn) A method for reducing the severity of a condition associated with the formation of beta amyloid plaques comprising administering an effective amount of an agent selected by the method of claim 1 or 3 to an individual affected with a condition associated with the formation of beta amyloid plaques, thereby decreasing formation of beta amyloid plaques by the affected individual.

14. (withdrawn) A method of reducing the severity of a condition associated with an activity of cathepsin B comprising administering an effective amount of an agent selected by the method of claim 1 or 3 to the affected individual, thereby reducing the severity of the condition associated with an activity of cathepsin B in the affected individual.

15. (withdrawn) A method of reducing the severity of a condition associated with an activity of cathepsin L comprising administering an effective amount of an agent selected by the method of claim 1 or 3 to the affected individual, thereby reducing the severity of the condition associated with an activity of cathepsin L in the affected individual.

16. (withdrawn) A method of reducing the severity of a condition associated with an activity of cathepsin B and cathepsin L comprising administering an effective amount of an

agent selected by the method of claim 1 or 3 to the affected individual, thereby reducing the severity of the condition associated with an activity of cathepsin B and cathepsin L in the affected individual.

17. (withdrawn) A method of decreasing production of an A β peptide by an individual affected with a condition that is associated with aggregation of the A β peptide into amyloid plaques comprising administering to the affected individual an effective amount of the agent that inhibits an activity of cathepsin B, thereby decreasing production of the A β peptide by the affected individual.

18. (withdrawn) A method of decreasing production of an A β peptide by an individual affected with a condition that is associated with aggregation of the A β peptide into amyloid plaques comprising administering to the affected individual an effective amount of the agent that inhibits an activity of cathepsin L, thereby decreasing production of the A β peptide by the affected individual.

19. (withdrawn) A method of decreasing production of an A β peptide by an individual affected with a condition that is associated with aggregation of the A β peptide into amyloid plaques comprising administering to the affected individual an effective amount of the agent that inhibits an activity of cathepsin B and cathepsin L, thereby decreasing production of the A β peptide by the affected individual.

20. (previously presented) The method of claim 3, wherein said β -secretase complex comprises cathepsin B and cathepsin L.